# How to apply

- Registration for the FDP can be done by filling up the google form via the given link or simply scanning the QR code.
- Intake seat is limited to 50 and preferences will be given to the faculties of Geography, Geology, Environmental Science, Forestry, Botany and Zoology and first come first serve for faculties of other disciplines.

# https://forms.gle/cCp9tDWazjh4FRe1A



## Registration fee: Rs. 1000/-

# Scan the QR code below for online payment or use UPI: 9615260760@sbi



Paonam Robinson Singh Ac No.: 33298871337 IFSC Code: SBIN0061675

**Important Dates:** 

- Opening of Registration-13th Dec 2023
- Closing of Registration-4.00 p.m., 25th Dec 2023
- Intimation of selected participants- 5.30 p.m., 25th Dec 2023



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# About the College

The Waikhom Mani Girls' College was established in the year 1980 to impart valuebased education and develop individual students for promotion and sustenance initiatives so as to make them better citizens of tomorrow. The college is affiliated to Manipur University, recognised by UGC under 2(f) and 12 (B) of UGC Act 1956. The college was accredited by NAAC in the year 2023 with B+ grade in the 2nd cycle. The college has established Institutional Biotech Hub in the year 2011 under the sponsorship of Dept. of Biotechnology, Ministry of Sc. & Tech. Govt. of India. The college has an Automatic Weather Station installed by the Environment and Ecology Wing of the Directorate of Environment & Climate Change, Govt. of Manipur. Deportment of Geography has been continuously making efforts to impart knowledge that matches with the evolving subject matter of the discipline. Its students are exposed to different socioenvironment landscapes through field study and project works.





#### **One Week Faculty Development Programme**

On UAV (Drone) Remote Sensing Technology and Its Application

(26th Dec - 31st Dec 2023)



Jointly organised by:

Dept. of Geography, Waikhom Mani Girls' College And Dept. of Geology, Moreh College, Moreh

#### Sponsored by:

#### Directorate of University & Higher Education Govt. of Manipur

Venue: Conference Hall, Waikhom Mani Girls' College, Thoubal

# **About the FDP**

UAV (Unmanned Aerial Vehicle) as the name suggest is an aircraft which has no pilot on board and has the ability to fly autonomously. UAV have occupied a relevant place in remote sensing and they are increasingly used for various purposes. As an alternative to the satellite imagery which has some limitations for common researchers and students in terms of time series mapping and availability of high-resolution images which are costly, the drone images can play an important role which are cost effective, faster acquisition of data with greater versatility and operational flexibility. Considering the practicability and sustainability of drone as a remote sensing platform in the present day, specific topic on drone image capturing, processing, mapping and analysis has been included in the curriculum of the Undergraduate Geography course under NEP 2020. Besides Geography, Geology, Environmental Science, Forestry also has dedicated papers and topics on Remote Sensing and GIS. Therefore, this FDP aims to conversant our faculties with the drone technology.





## **Course Module**

- Basics of UAV: Technologies, types, data acquisition process. flight planning.
- Drone Application Sensors, Installation and Introduction to software.
- Flight Mission Planning; UAV RS, UAV data acquisition and Processing methods, corrections, extraction, accuracy.
- Processing drone acquired images; Ortho-Rectified imagery, Digital Terrain Models & 3D construction of surface etc.
- Differences between satellite RS and UAV RS, Applications in natural resources, Infrastructure development and disaster management.
- Applications in urban studies, environment and forestry.
- Drone Fly Practical.

## **Resource Persons**

- Victor Saikhom, Scientist-SF, NESAC
- L Kuseshwor Singh, Scientist-A, MARSAC
- M Jagajit Singh, Manager IT, Computer
  Gallery

# **Course Outcomes**

- Faculties would gain a strong understanding of the fundamental concepts and principles of Remote Sensing, UAV Remote Sensing, GIS.
- Faculties would acquire practical skills in using UAV Remote Sensing and GIS software as well as handling in GNSS equipment such as drone and processing and analysis of the drone captured data.
- Faculties would acquire practical knowledge to conduct research on various fields where this technology can be applied.
- Faculties would be better equipped to solve real-world problems using geospatial technologies.



#### **Organising Committee:**

#### Chairperson

Prof. H. Manoranjan Sharma, Principal Programme Coordinator P. Robinson Singh, Asst. Prof., Geography Convenor Th. Shyamo Singh, HoD Geography Co-Convenor Md. Akbar Shah, Asst. Prof. Geology, Moreh College, Moreh Organising Secretary L. Ashutosh Sharma, Asst. Prof., Geography Member Dr. Lisam Sunil Singh, Asst. Prof., Geography